

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 02/13)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-13-007 (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Phil Cazel	27	916-653-1590

Recipient's Legal Name	Federal ID Number
Crimson Renewable Energy, LP	16-1768421

Title of Project
Bakersfield Biodiesel and Glycerin Production Plant Expansion Project

Term and Amount	Start Date	End Date	Amount
	12 / 19 / 2013	05 / 30 / 2017	\$ 5,000,000

Business Meeting Information			
<input type="checkbox"/> ARFVTP agreements under \$75K delegated to Executive Director.			
Proposed Business Meeting Date	12 / 19 / 2013	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Phil Cazel	Time Needed:	5 minutes
Please select one list serve. Altfuels (AB118- ARFVTP)			

Agenda Item Subject and Description
Possible approval of Grant Agreement ARV-13-007 with Crimson Renewable Energy, LP for \$5,000,000 to upgrade equipment at their existing facility in order to increase biodiesel production from 10 million gallons per year to 17 million gallons per year and to reduce the carbon intensity of the biodiesel produced to less than 14 gCO ₂ e/MJ.

California Environmental Quality Act (CEQA) Compliance
<p>1. Is Agreement considered a "Project" under CEQA?</p> <p><input checked="" type="checkbox"/> Yes (skip to question 2) <input type="checkbox"/> No (complete the following (PRC 21065 and 14 CCR 15378)):</p> <p>Explain why Agreement is not considered a "Project":</p> <p>Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because .</p>
<p>2. If Agreement is considered a "Project" under CEQA:</p> <p><input type="checkbox"/> a) Agreement IS exempt. (Attach draft NOE)</p> <p><input type="checkbox"/> Statutory Exemption. List PRC and/or CCR section number: _____</p> <p><input type="checkbox"/> Categorical Exemption. List CCR section number: _____</p> <p><input type="checkbox"/> Common Sense Exemption. 14 CCR 15061 (b) (3)</p> <p>Explain reason why Agreement is exempt under the above section: _____</p>
<p><input checked="" type="checkbox"/> b) Agreement IS NOT exempt. (Consult with the legal office to determine next steps.)</p> <p>Check all that apply</p> <p><input checked="" type="checkbox"/> Initial Study <input type="checkbox"/> Environmental Impact Report</p> <p><input type="checkbox"/> Negative Declaration <input type="checkbox"/> Statement of Overriding Considerations</p> <p><input checked="" type="checkbox"/> Mitigated Negative Declaration</p>

List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)	
Legal Company Name:	Budget
	\$
	\$ 0
BioEnergy International AG	\$ 3,940,200

List all key partners: (attach additional sheets as necessary)	
Legal Company Name:	
The Grant Farm	
Denuo Energy	

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Budget Information							
Funding Source		Funding Year of Appropriation		Budget List No.		Amount	
ARFVTF				601.118		\$5,000,000	
Funding Source						\$	
Funding Source						\$	
Funding Source						\$	
Funding Source						\$	
R&D Program Area:		N/A		TOTAL:		\$5,000,000	
Explanation for "Other" selection							
Reimbursement Contract #:				Federal Agreement #:			

Recipient's Administrator/ Officer				Recipient's Project Manager			
Name:		Harry Simpson		Name:		Harry Simpson	
Address:		950 17 th Street, ste 2650		Address:		950 17th Street, ste 2650	
City, State, Zip:		Denver, CO 80202		City, State, Zip:		Denver, CO 80202	
Phone:	720-475-5400	Fax:	720-475-5399	Phone:	720-475-5400	Fax:	720-475-5399
E-Mail:		hsimpson@crimsonrenewable.com		E-Mail:		hsimpson@crimsonrenewable.com	

Selection Process Used	
<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: PON-13-601
<input type="checkbox"/> First Come First Served Solicitation	

The following items should be attached to this GRF		
1. Exhibit A, Scope of Work	<input checked="" type="checkbox"/>	Attached
2. Exhibit B, Budget Detail	<input checked="" type="checkbox"/>	Attached
3. CEC 105, Questionnaire for Identifying Conflicts	<input checked="" type="checkbox"/>	Attached
4. Recipient Resolution	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Attached
5. CEQA Documentation	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Attached

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

Exhibit A SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1	N/A	Administration
2		Pre-Construction
3	X	Construction
4		Operations
5		Data Collection and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Harry Simpson (Crimson)		
2	Harry Simpson; Joel Pierce (Denuo Energy); Joe Gershen (Crimson); Cory Busby (Crimson); Bharath Vignesh (Crimson); Manfred Baumgartner, Johann Schlogl, Dr. Martin Ernst, and Wolfgang Jeitler (BDI); Steve Bluhm (Engel & Co.)	Denuo Energy BDI Engel & Company	
3	Joel Pierce; Harry Simpson, Cory Busby, Bharath Vignesh; Manfred Baumgartner and Wolfgang Jeitler	Denuo Energy BDI	
4	Cory Busby and Bharath Vignesh		
5	Joel Pierce; Bharath Vignesh and Joe Gershen	Denuo Energy	

GLOSSARY

Specific terms and acronyms used throughout this scope of work are defined as follows:

ARFVT	Alternative and Renewable Fuel and Vehicle and Technology
Energy Commission	California Energy Commission
CAM	Commission Agreement Manager
CPR	Critical Project Review
FTD	Fuels and Transportation Division
Recipient	Crimson Renewable Energy LP
ULCI	Ultra Low Carbon Intensity

BACKGROUND:

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology (ARFVT) Program. The statute, subsequently amended by AB 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the California Energy Commission (Energy Commission) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change policies. The Energy Commission has an annual program budget of approximately \$100 million and provides financial support for projects that:

- Develop and improve alternative and renewable low-carbon fuels;
- Optimize alternative and renewable fuels for existing and developing engine technologies;
- Produce alternative and renewable low-carbon fuels in California;
- Decrease, on a full fuel cycle basis, the overall impact and carbon footprint of alternative and renewable fuels and increase sustainability;
- Expand fuel infrastructure, fueling stations, and equipment;
- Improve light-, medium-, and heavy-duty vehicle technologies;
- Retrofit medium- and heavy-duty on-road and non-road vehicle fleets;
- Expand infrastructure connected with existing fleets, public transit, and transportation corridors; and
- Establish workforce training programs, conduct public education and promotion, and create technology centers.

The California Energy Commission issued solicitation PON-13-601 to provide funding opportunities under the ARFVT Program for projects that develop commercial-scale, California-based biofuel production facilities that can sustainably produce at least 15,000,000 gallons per year of low carbon transportation fuels. To be eligible for funding under PON-13-601, the projects must also be consistent with the ARFVT Investment Plan updated annually. In response to PON-13-601, Recipient submitted application #1, which was proposed for funding in the Energy Commission's Notice of Proposed Awards issued November 7, 2013, and is incorporated by reference to this Agreement in its entirety.

In the event of any conflict or inconsistency between the terms of the Solicitation and the terms of the Recipient's Application, the Solicitation shall control. In the event of any conflict or inconsistency between the Recipient's Application and the terms of the Energy Commission's Award, the Commission's Award shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Recipient's Application, the terms of this Agreement shall control.

Problem Statement:

Crimson Renewable Energy, LP currently operates the Bakersfield Biodiesel and Glycerin Production Plant which converts feedstocks such as used cooking oil, animal fats, and waste corn oils from the ethanol production process into biodiesel for the California Market. The existing plant faces bottlenecks that prevent it from maximizing its current potential production capacity. The proposed improvements would reduce the carbon intensity of the plant's biodiesel output by increasing the plant's ability to process certain currently available ultra-low carbon intensity (ULCI) feedstocks and expand annual biodiesel production from 10 to 17 million gallons per year.

Goals of the Agreement:

The goals of the proposed project are to increase the volume of cost-competitive, ULCI biodiesel available for blending in California's transportation fuels and encourage the development of a California-based ULCI feedstock production market.

Objectives of the Agreement:

The objectives of the agreement are to:

- Install a new higher capacity (55-60 gallon per minute) decanting centrifuge to reduce overall water consumption by 40-50 percent.
- Install a new glycerin processing system to provide higher throughput rates and to significantly improve recovery of unprocessed oil and partially processed esters.
- Install a new buffer vessel and transfer pumps to facilitate the continuous input from the feedstock drying process to reduce the fill time of the acid esterification reactor by 65-80%.
- Install an additional 23 MMBTU per hour of steam capacity to provide sufficient steam heat for methanol recovery, glycerin processing, and feedstock drying systems.
- Install a new 8,000-gallon transesterification reactor to provide a total reactor capacity of 24,000 gallons.

TASK 1 ADMINISTRATION**Task 1.1 Attend Kick-off Meeting**

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement. The CAM shall designate the date and location of this meeting and provide an agenda to the Recipient prior to the meeting.

The Recipient shall:

- Attend a "Kick-Off" meeting with the Commission Agreement Manager, the Grants Officer, and a representative of the Accounting Office. The Recipient shall bring its Project Manager, Agreement Administrator, Accounting Officer, and others designated by the Commission Agreement Manager to this meeting.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - Critical Project Review (Task 1.2)
 - Match fund documentation (Task 1.6) No reimbursable work may be done until this documentation is in place.
 - Permit documentation (Task 1.7)
 - Subcontracts needed to carry out project (Task 1.8)
 - The CAM's expectations for accomplishing tasks described in the Scope of Work
 - An updated Schedule of Products and Due Dates
 - Monthly Progress Reports (Task 1.4)
 - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
 - Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits

Commission Agreement Manager Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

CPRs provide the opportunity for frank discussions between the Energy Commission and the Recipient. The goal of this task is to determine if the project should continue to receive Energy Commission funding to complete this Agreement and to identify any needed modifications to the tasks, products, schedule or budget.

The Commission Agreement Manager (CAM) may schedule CPR meetings as necessary, and meeting costs will be borne by the Recipient.

Meeting participants include the CAM and the Recipient and may include the Commission Grants Officer, the Fuels and Transportation Division (FTD) biofuel lead, other Energy Commission staff and Management as well as other individuals selected by the CAM to provide support to the Energy Commission.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. Prepare a schedule for providing the written determination described below.
- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see section 8 of the Terms and Conditions). If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Lead Commissioner for Transportation for his or her concurrence.
- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

CAM Products:

- Agenda and a list of expected participants
- Schedule for written determination

- Written determination

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with Energy Commission staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.
This meeting will be attended by, at a minimum, the Recipient, the Commission Grants Office Officer, and the Commission Agreement Manager. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Commission Agreement Manager.
The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The Commission Agreement Manager will determine the appropriate meeting participants.
The administrative portion of the meeting shall be a discussion with the Commission Agreement Manager and the Grants Officer about the following Agreement closeout items:
 - What to do with any equipment purchased with Energy Commission funds (Options)
 - Energy Commission's request for specific "generated" data (not already provided in Agreement products)
 - Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
 - "Surviving" Agreement provisions
 - Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement.

Products:

- Written documentation of meeting agreements
- Schedule for completing closeout activities

Task 1.4 Monthly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

The objectives of this task are to summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, and to form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a Monthly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the Commission Agreement Manager within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.
- In the first Monthly Progress Report and first invoice, document and verify match expenditures and provide a synopsis of project progress, if match funds have been expended or if work funded with match share has occurred after the notice of proposed award but before execution of the grant agreement. If no match funds have been expended or if no work funded with match share has occurred before execution, then state this in the report. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.

Product:

- Monthly Progress Reports

Task 1.5 Final Report

The goal of the Final Report is to assess the project's success in achieving the Agreement's goals and objectives, advancing science and technology, and providing energy-related and other benefits to California.

The objectives of the Final Report are to clearly and completely describe the project's purpose, approach, activities performed, results, and advancements in science and technology; to present a public assessment of the success of the project as measured by the degree to which goals and objectives were achieved; to make insightful observations based on results obtained; to draw conclusions; and to make recommendations for further projects and improvements to the FTD project management processes.

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

The Recipient shall:

- Prepare an Outline of the Final Report, if requested by the CAM.
- Prepare a Final Report following the latest version of the Final Report guidelines which will be provided by the CAM. The CAM shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
- Submit one bound copy of the Final Report with the final invoice.

Products:

- Outline of the Final Report, if requested
- Draft Final Report
- Final Report

Task 1.6 Identify and Obtain Matching Funds

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of Energy Commission funds for each task during the term of this Agreement. Match funds must be identified in writing and the associated commitments obtained before the Recipient can incur any costs for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
 - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
 - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the Commission Agreement Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Agreement Manager within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

Products:

- A letter regarding match funds or stating that no match funds are provided
- Copy(ies) of each match fund commitment letter(s) (if applicable)
- Letter(s) for new match funds (if applicable)
- Letter that match funds were reduced (if applicable)

Task 1.7 Identify and Obtain Required Permits

The goal of this task is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track.

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient shall budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

The Recipient shall:

- Prepare a letter documenting the permits required to conduct this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies the:
 - Type of permit
 - Name, address and telephone number of the permitting jurisdictions or lead agencies
 - The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, provide the appropriate information on each permit and an updated schedule to the Commission Agreement Manager.
- As permits are obtained, send a copy of each approved permit to the Commission Agreement Manager.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the Commission Agreement Manager within 5 working days. Either of these events may trigger an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required
- A copy of each approved permit (if applicable)
- Updated list of permits as they change during the term of the Agreement (if applicable)
- Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)

Task 1.8 Obtain and Execute Subcontracts

The goal of this task is to ensure quality products and to procure subcontractors required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement policies and procedures. It will also provide the Energy Commission an opportunity to review the subcontracts to ensure that the tasks are consistent with this Agreement, and that the budgeted expenditures are reasonable and consistent with applicable cost principles.

The Recipient shall:

- Manage and coordinate subcontractor activities.
- Submit a draft of each subcontract required to conduct the work under this Agreement to the Commission Agreement Manager for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

Products:

- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 PRE-CONSTRUCTION

The goal of this task is to complete process, mechanical, and electrical design packages for the improvements and proposed expansion of the biodiesel & glycerin production plant and to complete all other pre-construction activities, including final agreements, construction and equipment lists, and approval to proceed with construction.

Task 2.1 Design

The goal of this task is to complete civil, structural, process, mechanical, and electrical design packages for the debottlenecking improvements and proposed expansion of the existing facility. Design and engineering packages will provide the necessary information and level of detail to integrate the new equipment into the existing process.

The Recipient shall:

- Complete **civil**, structural, process, mechanical, and electrical design and engineering for improvements to the existing facility. Design and engineering packages shall be generated for the following:
 - New feedstock washing and drying system featuring decanting centrifuge, buffer vessel, larger capacity pumps, and associated controls and heat exchangers.
 - New 8,000-gal transesterification reactor and associated pumps, controls and heat exchangers.
 - New 23 MMBTU-per-hour steam generator/boiler system, new condensate return tank, and enlargement and modification of portions of current steam supply and condensate return piping system.
 - Modifications to current biodiesel water wash system featuring changes to current wash vessels and addition of new wash vessel for water recycling and continuous washing.
 - New glycerin neutralization and acidulation system (new glycerin processing system) featuring segregated storage of heavy phase from transesterification and

- excess methanol from acid esterification, new continuous neutralization and acidulation vessel, and new decanting centrifuge for phase separation and salt removal.
 - Expansion of current electrical capacity to level sufficient to accommodate all of the above.
- Test and optimize process controls and ratios for methanol and acid catalyst utilization in acid esterification and transesterification
- Prepare and release bid packages for selection of construction firms for the following:
 - Site prep and soils excavation, fill, and compaction.
 - Concrete foundations and structural supports.
 - Mechanical and piping installation.
 - Electrical and automation / controls installation.
- Review respondents and select construction firms.

Products:

- Feedstock washing and drying design and engineering package
- Transesterification reactor and associated equipment design and engineering package
- Steam generator/boiler system, new condensate return tank, and associated equipment design and engineering package
- Modifications to current biodiesel water wash system design and engineering package
- Glycerin neutralization and acidulation system design and engineering package
- Electrical system expansion design and engineering package
- Summary report of process controls testing and optimization
- Copy of bid package for site prep and soils excavation, fill, and compaction
- Copy of bid package for concrete foundations and structural supports
- Copy of bid package for mechanical and piping installation
- Copy of bid package for electrical and automation/controls installation
- List of selected construction firms

TASK 2.2 CONSTRUCTION AND EQUIPMENT LIST

The goal of this task is to finalize the project design and construction costs prior to incurring major construction expenses.

The Recipient shall:

- Prepare Construction and Equipment Lists documenting the comprehensive construction costs. The Construction and Equipment List will include all items to be purchased, constructed, or installed on the project. For each item, the letter shall provide:
 - The name of the item.
 - The make, model, size, capacity or other information as appropriate to the item.
 - The name of the entity that will be carrying out the purchase and/or supply or installation of the item.
 - The estimated or bid cost to purchase and install the item.

Products:

- Construction and Equipment Lists

TASK 2.3 APPROVAL TO PROCEED WITH CONSTRUCTION

The goal of this task is to document preparedness to build the project and to secure Commission Agreement Manager approval to begin incurring major construction costs.

The Recipient shall:

- Prepare a Written Notification of Readiness to Construct stating the project has obtained all permits, third party agreements, binding construction and equipment bids, and all other items necessary to begin construction.
- Develop proposed Construction Timeline running from the intended date to begin construction until the commercial operation date of the project.

Products:

- Written Notification of Readiness to Construct
- Construction Timeline

TASK 3 SITE CONSTRUCTION

The goal of this task is to perform the construction activities at the fuel production facility and prepare it for commercial operations.

The Recipient shall:

- Procure all required equipment and materials for construction.
- Execute construction of the project as outlined in the Construction Timeline and Construction and Equipment lists. This construction shall include the following major components:
 - Layout
 - Civil and Site Work
 - Expansion of existing electrical capacity
 - Installation of new steam generators/boiler system
 - Installation of new Feedstock Washing and Drying System
 - Installation of new Transesterification Reactor
 - Installation of new Biodiesel Distillation System Installation of new Glycerin Neutralization and Acidulation System Test and Commission facility before operating
- Conduct:
 - Process Hazard Analysis
 - Pre-Startup Safety Review
- Conduct training for operational personnel.
- Startup and commission plant.
- Prepare a Written Notification of Commercial Operation and submit it to the Commission Agreement Manager within ten working days of commercial operation of the project. The Written Notification shall contain the following elements:
 - The date the project achieved commercial operation(s)
 - A narrative on the current status of the project and initial operations
 - Any changes made from the project as originally proposed and reasons for those changes.

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

Products:

- Construction Report

- Written Notification of Commercial Operation

TASK 4 OPERATIONS

The goal of this task is to operate the fuel production facility as designed and to begin to collect data to document the project's fulfillment of its objectives.

The Recipient shall:

- Operate facility and comply with all applicable regulatory standards.
- Prepare a Monthly Operations Report. The Operations Report shall include but are not be limited to the following information:
 - A narrative on operational highlights from the previous month, including any stoppages in production and a statement as to the project's compliance with regulatory requirements.
 - The total amount of fuel produced on a monthly basis.
 - The total amount of feedstock received and processed on a monthly basis.
 - Conversion ratio for feedstock to fuel production.
 - The direct operational costs of the project.

Products:

- Monthly Operations Reports

Task 5 DATA COLLECTION AND ANALYSIS

The goal of this task is to collect operational data from the project, to analyze that data for economic and environmental impacts, and to include the data and analysis in the Final Report.

The Recipient shall:

- Develop data collection test plan.
- Troubleshoot any issues identified.
- Collect 6 months of throughput, usage, and operations data from the project including, but not limited to:
 - Maximum capacity of the new fueling system
 - Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)
 - Expected air emissions reduction, for example:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Non-methane hydrocarbons plus oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
 - Specific jobs and economic development resulting from this project
- Identify any current and planned use of renewable energy at the facility.
- Identify the source of the alternative fuel.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code Regulations.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- Provide a quantified estimate of the project's carbon intensity values for life-cycle greenhouse gas emissions.

- Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.
- Collect data, information, and analysis described above and include in the Final Report.

Products:

- Data collection information and analysis will be included in the Final Report